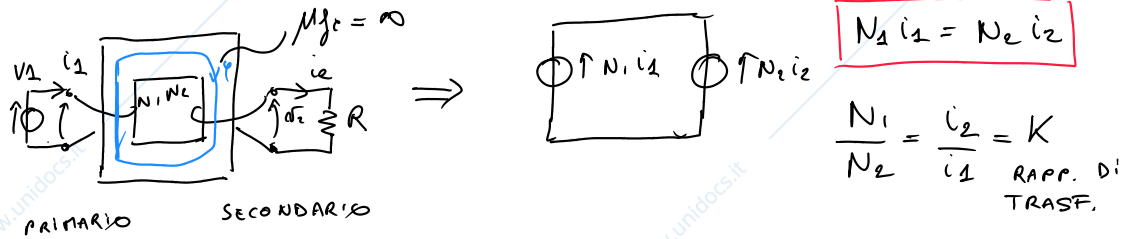
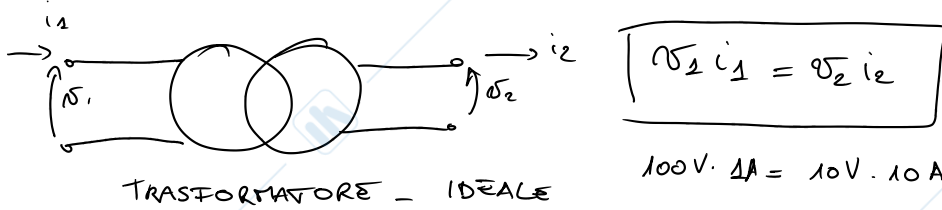


TRASFORMATORE



$\mathcal{V}_1 = \frac{d\psi_1}{dt}$ $\mathcal{V}_2 = \frac{d\psi_2}{dt}$

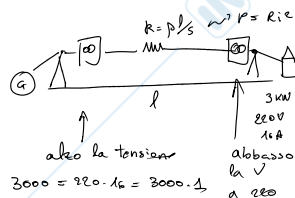
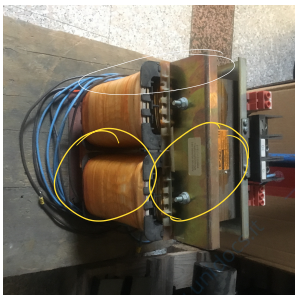
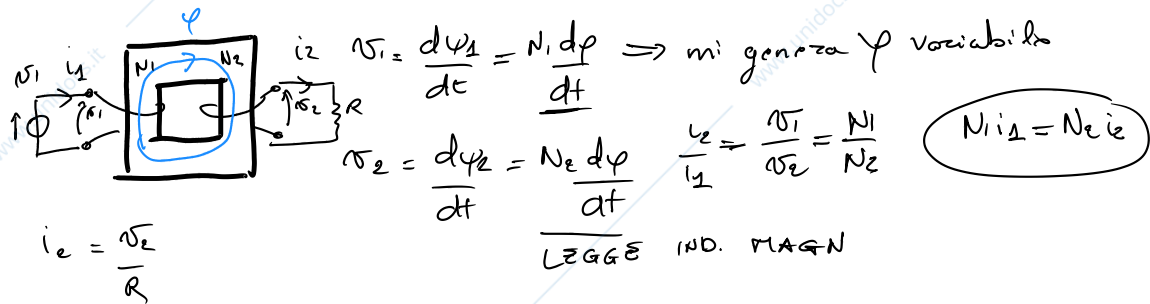
impongo con il generatore variabile ψ una variabile di $\psi \Rightarrow \psi = \frac{\psi_1}{N_1}$ con N_2 $\Rightarrow \psi_2 = N_2 \psi$

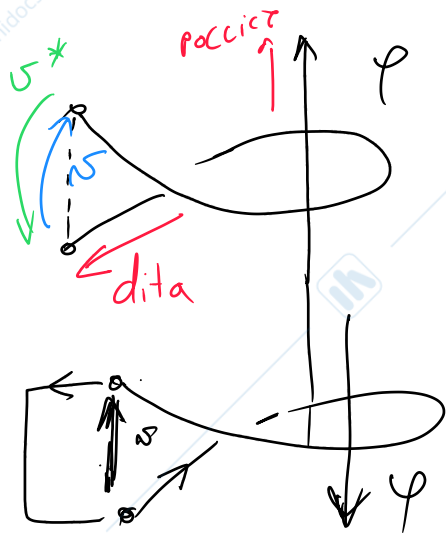
$\mathcal{V}_1 = N_1 \frac{d\psi}{dt}$ $\mathcal{V}_2 = N_2 \frac{d\psi}{dt}$

$\frac{d\psi}{dt} = \frac{\mathcal{V}_1}{N_1} \Rightarrow \mathcal{V}_2 = \frac{N_2}{N_1} \mathcal{V}_1$

$\frac{\mathcal{V}_1}{\mathcal{V}_2} = \frac{N_1}{N_2} = \frac{i_2}{i_1}$

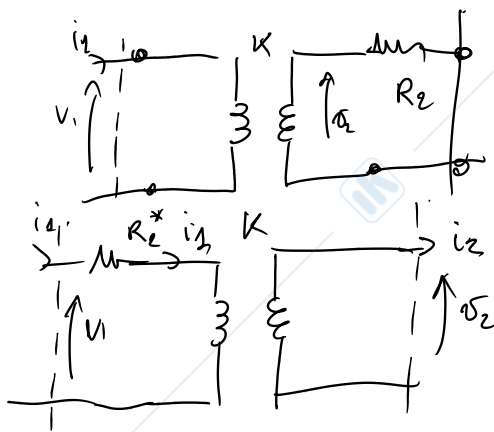
$N_1 i_1 = N_2 i_2$





$$\omega = \frac{d\phi}{dt} \quad \text{e} \quad \omega^* = - \frac{d\phi}{dt}$$

$$\mathcal{E} = \frac{d(Li)}{dt} = L \frac{di}{dt}$$



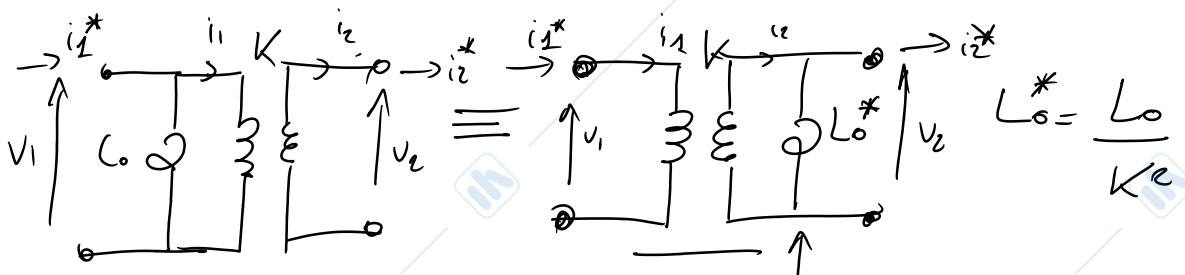
$k = \frac{N_1}{N_2}$ RAPP. DI TRASFORMAZIONE

$$k = \frac{V_1}{V_2} = \frac{i_2}{i_1}$$

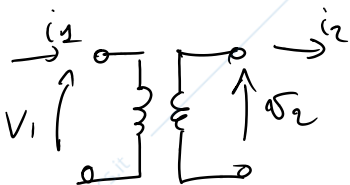
$$R_2 i_2^2 = R_2^* i_1^2$$

$$R_2^* = R_2 \frac{i_2^2}{i_1^2} = R_2 \cdot k^2$$

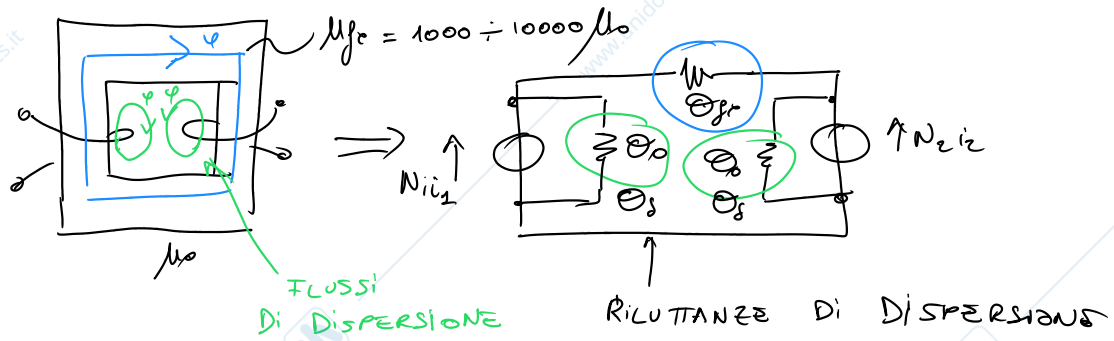
$$R_2 = \frac{R_2^*}{k^2}$$



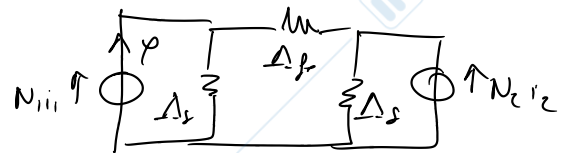
$$L_0^* = \frac{L_0}{k^2}$$



TRASF. IDEALE $V_1 i_1 = V_2 i_2$



$$\Delta = \frac{l}{\mu} \text{ PERMEANZA [H]}$$



$$L_{11} = \frac{\Psi_1}{i_1} \Big|_{i_2=0}$$

$$L_{11} = Ni_1^2 (\Delta_{gr} + \Delta_s)$$

